# APPENDIX C
# ERP Functionality Comparison Analysis

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# APPENDIX C: ERP FUNCTIONALITY COMPARISON ANALYSIS

## INTRODUCTION AND OBJECTIVE

The purpose of this document is to assess how well ERP vendors can meet the State's business requirements. In order to perform this assessment, the State's business requirements were documented and issued as a part of a request for information (RFI). ERP vendors were asked to address their ability to meet each requirement.

Business requirements were developed for the following functional areas:

- Financial Management
    - General Ledger / Budget Control
    - Accounts Payable / Travel
    - Accounts Receivable / Cash Receipts / Cash Management
    - Budget Development (including Performance-Based Budgeting)
    - Cost Accounting / Allocation
    - Project Management and Grant Accounting
- Purchasing
- Inventory
- Fleet Management
- Asset Management
- DOT Project and Materials Management
- Payroll
- Human Resources
    - Employee Self-Service
    - Personnel Administration
    - Position Control
    - Recruiting and Applicant Tracking
    - Training and Employee Development
    - Compensation
    - Timekeeping
    - Employee Leave Accounting
    - Benefits Administration (insurance only)
- Technical

## *REQUIREMENTS DEVELOPMENT*

In preparation for the requirement sessions, STA consultants reviewed existing system documentation and policy and procedure manuals. Then, STA facilitated a series of work sessions with the State's subject matter experts (SMEs). A product of these sessions was the documentation of key State "As Is" business processes. Also, additional requirements were identified and added to the baseline requirements. The following diagram illustrates how the requirements were developed.

During the "To Be" requirement sessions, STA consultants and the State SMEs reviewed the baseline set of requirements and continued to identify new requirements. Each requirement was identified as being new functionality or existing in current administrative systems. In addition, each requirement was also prioritized as to its importance to the State. The definition of each requirement classification is shown below.

### Existing or New

**E**    Existing – The functionality currently exists in the system

**N**    New – The functionality does not exist in the current system

### Importance to the State

**M**    Mandatory – The functionality must be in the ERP system

**C**    Critical - The functionality is critical to business operations. If the functionality does not exist, the ERP system must have a workaround to avoid a negative impact on the work processes.

**D**    Desired – This functionality is nice to have. However, if this functionality is not available work processes would not be negatively impacted.

Five ERP vendors responded to the RFI. The vendors that responded (in alphabetical order) were AMS, Lawson, Oracle, PeopleSoft, and SAP.

For each requirement, the ERP vendors could choose from one of the five responses presented in the table below.

| RESPONSE | RESPONSE DEFINITION |
|---|---|
| **S – Standard Functionality** | The ERP software provides the requested functionality without screen, code, or design changes. The product can satisfy the specification "<u>out-of-the-box</u>" without any modification to the standard baseline software offering. Only use "S" if the software fully meets the requirement. |
| **M – Modification Required** | Screen, code, or design modifications must be made to the standard offering (ERP or Third party package) to satisfy the specified requirement. A brief explanation is required to support any proposed modification; explanations should be provided in the "Comments" section of the matrix. |
| **C – Custom** | The software (ERP or Third party package) supports the data elements |

| RESPONSE | RESPONSE DEFINITION |
|---|---|
| **Report/Inquiry Required** | necessary for the report/inquiry, but a custom report/inquiry would need to be developed to meet the requirement. <br> A brief explanation is required to support any proposed modification; explanations should be provided in the "Comments" section of the matrix. |
| **N – Cannot Meet Requirement** | The desired feature or component is not available as standard functionality or through modification/enhancement.  The requirement would most likely need to be met by a process workaround or by interfacing an existing legacy application. |
| **T – Third Party** | The desired feature or component is not available as standard functionality of the ERP system but is a standard feature of the third party solution.  The third party software, which is fully integrated with the ERP system, provides the requested functionality without screen, code, or design changes.  The proposed third party product can satisfy the specification "out-of-the-box" without any modification to the standard baseline software offering.  Only use "T" if the software fully meets the requirement. |

## *VENDOR RESPONSE SUMMARY*

Following is a summary of each vendor's response to the RFI.

| VENDOR | % STANDARD | % MOD | % CUST | % NO | % THIRD PARTY | Totals |
|---|---|---|---|---|---|---|
| AMS | 83 | 7 | 4 | 1 | 5 | 100 |
| Lawson | 58 | 11 | 5 | 0 | 27 | 100 |
| Oracle | 83 | 6 | 3 | 1 | 7 | 100 |
| PeopleSoft | 70 | 12 | 7 | 4 | 7 | 100 |
| SAP | 95 | 1 | 1 | 1 | 1 | 100 |
| **Average of all vendors** | **78** | **7** | **4** | **2** | **9** | **100** |

There was a wide disparity in the vendor responses to the Fleet Management and Department of Transportation Requirements.  Excluding these modules (i.e., Department of Transportation requirements and Fleet Management requirements), the degree of fit is as follows:

| VENDOR | % STANDARD | % MOD | % CUST | % NO | % THIRD PARTY | Totals |
|---|---|---|---|---|---|---|
| AMS | 90 | 7 | 3 | 0 | 0 | 100 |
| Lawson | 63 | 11 | 5 | 0 | 21 | 100 |
| Oracle | 87 | 6 | 3 | 1 | 3 | 100 |
| PeopleSoft | 73 | 12 | 7 | 0 | 8 | 100 |
| SAP | 96 | 1 | 1 | 1 | 1 | 100 |
| **Average Degree of Fit, Excluding Fleet and TDOT** | **82** | **7** | **4** | **2** | **6** | **100** |

## *AVERAGE VENDOR RESPONSE BY MODULE*

Following is a summary of the each vendor's percentage of "Standard" responses by module.  More detailed information on the vendor's responses can be found in the appendices.

| MODULE | AMS | LAWSON | ORACLE | PSFT | SAP | TOTALS |
|---|---|---|---|---|---|---|
| | | | | | | |
| Accounts Payable | 89 | 75 | 89 | 92 | 92 | 88 |
| Application Services | 83 | 48 | 77 | 39 | 98 | 69 |
| Asset Management | 81 | 81 | 89 | 70 | 94 | 83 |
| Benefits Administration | 93 | 83 | 77 | 68 | 99 | 84 |
| Budget Development | 98 | 38 | 88 | 87 | 90 | 80 |
| Cash Management | 82 | 43 | 90 | 73 | 95 | 77 |
| Classification | 99 | 89 | 84 | 75 | 100 | 89 |
| Cost Acctg./Allocation | 95 | 92 | 98 | 90 | 99 | 95 |
| Employee Leave | 100 | 81 | 91 | 73 | 100 | 74 |
| Employee Self Service | 76 | 66 | 76 | 70 | 95 | 77 |
| Fleet Management | 0 | 0 | 84 | 0 | 80 | 47 |
| General Ledger | 100 | 91 | 97 | 88 | 95 | 94 |
| General Requirements | 84 | 86 | 84 | 83 | 91 | 86 |
| Inventory | 94 | 0 | 95 | 91 | 100 | 76 |
| Payroll | 96 | 86 | 93 | 78 | 100 | 90 |
| Personnel Administration | 91 | 79 | 84 | 81 | 97 | 87 |
| Position Control | 99 | 85 | 99 | 90 | 100 | 95 |
| Project Accounting | 93 | 0 | 84 | 88 | 93 | 71 |
| Purchasing | 83 | 0 | 81 | 77 | 97 | 68 |
| Revenue | 78 | 81 | 67 | 45 | 72 | 68 |
| TDOT | 9 | 0 | 0 | 0 | 98 | 21 |
| Technical | 89 | 83 | 93 | 92 | 94 | 90 |
| Timekeeping and Labor | 98 | 83 | 99 | 74 | 100 | 91 |
| Training | 77 | 11 | 84 | 48 | 100 | 64 |
| | | | | | | |
| All Vendor Average | 83 | 58 | 83 | 70 | 95 | 78 |
| Average w/o TDOT & Flee | 90 | 63 | 87 | 76 | 96 | 82 |

Please see Appendix F: Selected Change Matrix Reports for additional information and analysis regarding the ERP vendor's degree of fit for the State of Tennessee.

Appendix F contains the following reports:

♦ ERP vendor responses regarding the requirements by the classifications of % Standard, % Modification, % Custom, % Cannot Meet, % Third Party, and % No Response ("Vendor Response Code Percentages").

♦ ERP vendor responses regarding the requirements by the classifications of Critical, Mandatory, and Desired ("Requirement Percentages By Critical, Mandatory, Desired").

♦ ERP vendor responses regarding the requirements by the classifications of Existing and New ("Percentage of Requirements By Existing and New").